# General

## Guideline Title

(1) Risk assessment & prevention of pressure ulcers. (2) Risk assessment & prevention of pressure ulcers 2011 supplement.

## Bibliographic Source(s)

Registered Nurses' Association of Ontario (RNAO). Risk assessment & prevention of pressure ulcers 2011 supplement. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2011 Sep. 48 p. [130 references]

Registered Nurses' Association of Ontario (RNAO). Risk assessment & prevention of pressure ulcers. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2005 Mar. 80 p. [70 references]

## Guideline Status

This is the current release of the guideline.

# Recommendations

## Major Recommendations

*Note from the National Guideline Clearinghouse (NGC) and the Registered Nurses' Association of Ontario (RNAO)*: In October 2010, the panel was convened to achieve consensus on the need to revise the existing set of recommendations. A review of recent studies since the guideline was reviewed in 2005 does not support dramatic changes to the recommendations, but rather suggests some refinements and stronger evidence in the guideline's approach.

The levels of evidence supporting the recommendations (Ia, Ib, IIa, IIb, III, IV) are defined at the end of the "Major Recommendations" field. See the original guideline document for additional information provided in the "Discussion of Evidence."

Practice Recommendations

Recommendation 1.1

A comprehensive head-to-toe skin assessment should be carried out with all clients at admission, and daily thereafter for those identified at risk for skin breakdown. Particular attention should be paid to vulnerable areas, especially over bony prominences and skin adjacent to external devices.

*(Level of Evidence = Ia)*

Recommendation 1.2a

The client's risk for pressure ulcer development is determined by the combination of clinical judgment and the use of a valid reliable risk assessment tool. The use of a structured tool that has been tested for validity and reliability, such as the Braden Scale for Predicting Pressure Sore Risk, the Norton Pressure Sore Risk Assessment Scale and the Waterlow Pressure Ulcer Risk Assessment Tool are recommended.

*(Level of Evidence = III)*

Recommendation 1.2b

Assess for intrinsic/extrinsic risk factors that are associated with the development of pressure ulcers.

*(Level of Evidence = III)*

Recommendation 1.3

Assessment scales to assess and reassess risk for skin breakdown and overall skin condition specific to vulnerable populations such as the elderly, palliative patients, the neonate/the child, spinal cord injured patients, and bariatric patients should be considered.

*(Level of Evidence = III)*

Recommendation 1.4

Assessment and documentation of skin changes amongst palliative patients at the end of life should be conducted as recommended by the consensus statement Skin Changes At Life's End (SCALE).

*(Level of Evidence = IV)*

Recommendation 1.5

All sectors of the health care system, programs, and services should conduct risk assessments and reassessments to plan prevention strategies that will minimize the risk of pressure ulcer development.

*(Level of Evidence = IV)*

Recommendation 1.6a

All pressure ulcers are identified and described using standardized systems and language (e.g., National Pressure Ulcer Advisory Panel and European Pressure Ulcer Advisory Panel pressure ulcer classification system).

*(Level of Evidence = IV)*

Recommendation 1.6b

If pressure ulcers are identified, utilization of the RNAO best practice guideline *Assessment and Management of Stage I to IV Pressure Ulcers* along with other related guidelines is recommended.

*(Level of Evidence = IV)*

Recommendation 1.7

All findings should be documented at the time of assessment and reassessment.

*(Level of Evidence = IV)*

Planning

Recommendation 2.1

An individualized plan of care should be developed in collaboration with the client, significant others and an interdisciplinary team, including consulting health care providers as appropriate. The team uses assessment and reassessment data in combination with clinical judgment to identify risk factors and to recommend the plan of care. Client centered care aligns with the recommendations and the client's choice of goals.

*(Level of Evidence = IV)*

Interventions

Recommendation 3.1a

Clients identified to be at risk for developing a pressure ulcer should be resting on a pressure management surface such as a high-specification foam pressure redistribution mattress.

*(Level of Evidence = Ia)*

Recommendation 3.1b

A re-positioning schedule of at least every two hours should be promptly implemented when using a standardized mattress, emergency stretcher or operating table surface. When using a pressure management surface (re-distribution mattress or cushion) use a re-positioning schedule of at least every four hours or as required by the patient's condition. Consider other patient factors such as the development of redness to increase the frequency of repositioning.

*(Level of Evidence = Ia)*

Recommendation 3.2

Heels must be completely off loaded in all positions. If not feasible, reason(s) must be documented, the heels must be monitored, and other prevention strategies implemented.

*(Level of Evidence = III)*

Recommendation 3.3

Use proper positioning, transferring and turning techniques. Consult an occupational or physical therapist (OT/PT) regarding transfer and positioning techniques and strategies, as well as devices to reduce pressure friction and shear in all positions, and how to optimize client independence.

*(Level of Evidence = Ib)*

Recommendation 3.4

Assess, document and effectively manage pain to enable implementation of the most appropriate plan of care for pressure ulcer prevention without compromising comfort and quality of life.

*(Level of Evidence = IV)*

Recommendation 3.5

Massaging over bony prominences and reddened areas should be avoided.

*(Level of Evidence = IV)*

Recommendation 3.6

Implementation of intraoperative pressure management devices is recommended for surgical procedures lasting more than 90 minutes.

*(Level of Evidence = Ib)*

Recommendation 3.7a

Before implementing localized pressure management devices (e.g., heel boots, wedges, etc.) consider:

- Potential for increased pressure over surrounding areas of the skin by the device
- Caregiver training and education to ensure correct use of the device
- Factors that enable client adherence

*(Level of Evidence = IV)*

Recommendation 3.7b

Complete bed rest is not recommended for the prevention and healing of pressure ulcers. Determine the rationale for bed rest and focus on getting the client up into an appropriate wheelchair for part of the day, as appropriate.

*(Level of Evidence = III)*

Recommendation 3.8

Protect skin from excessive moisture and incontinence to maintain skin integrity:

- Monitor fluid intake to ensure adequate hydration
- Use a pH balanced, non-sensitizing skin cleanser with warm water for cleansing
- Minimizing force and friction during care (e.g., use a soft wipe or spray cleanser)
- Maintain skin hydration by applying moisturizing agents that are non-sensitizing, pH balanced, fragrance free and/or alcohol free
- Use topical protective barriers to protect skin from moisture. Avoid ingredients and excess application of products that may compromise the absorptive capacity of the incontinent brief
- Use protective barriers (e.g., liquid barrier films, transparent films, hydrocolloids) or protective padding to reduce friction injuries
- If skin irritation persists due to moisture, consult with advanced practice nurses and/or with the appropriate interdisciplinary team for evaluation and topical treatment
- Establish a bowel and bladder program

*(Level of Evidence = III)*

Recommendation 3.9

A nutrition and hydration assessment with appropriate interventions should be implemented on entry to any health-care setting and when the client's condition changes. If nutritional deficit and/or dehydration is suspected:

- Consult with a registered dietitian
- Investigate factors that compromise an apparently well nourished individual's dietary intake (especially protein or calories) and/or fluid intake and offer the individual support with eating/drinking
- Plan and implement a nutritional support and/or supplementation program for nutritionally compromised/dehydrated individuals
- If dietary/fluid intake remains inadequate, consider alternative nutritional interventions

*(Level of Evidence = III)*

Recommendation 3.10

Institute a rehabilitation/restorative/activity program with the interprofessional team to maximize client's functional status that is consistent with the overall goals of care. Consult with an occupational therapist or physical therapist as appropriate.

*(Level of Evidence = IV)*

Discharge/Transfer of Care Arrangements

Recommendation 4.1

Provide the following information for clients moving between care settings:

- Risk factors identified
- Details of pressure points and skin condition prior to discharge
- Current plan to minimize pressure, friction and shear:
    - Type of bed/mattress
    - Type of seating
    - Current transfer techniques used by the client (bed-chair-commode)
- History of ulcers, previous treatments, products used and products not effective:
    - Stage/Category, site and size of existing ulcers
    - Type of dressing currently used and frequency of dressing change
    - Allergies and adverse reactions to wound care products
    - Summary of relevant laboratory results
    - Client and family response/adherence to prevention and treatment plan
    - Requirement for pain management
- Details of ulcers that are closed
- Need for on-going interprofessional support

*(Level of Evidence = IV)*

Education Recommendations

Recommendation 5.1a

Educational programs for the prevention of pressure ulcers should be structured, organized and comprehensive, and should be updated on a regular basis to incorporate new evidence and technologies.

*(Level of Evidence = III)*

Recommendation 5.1b

Programs should be directed at all levels of health care providers including clients, family or caregivers.

*(Level of Evidence = III)*

Recommendation 5.2

An educational program for prevention of pressure ulcers should incorporate the principles of adult learning and the level of information provided, and the mode of delivery must be flexible to accommodate the needs of the adult learner. Program evaluation is a critical component of the program planning process. Information on the following areas should be included:

- The etiology and risk factors predisposing to pressure ulcer development
- Use of risk assessment tools, such as the Braden Scale for Predicting Pressure Sore Risk Categories of the risk assessment should also be utilized to identify specific risks to ensure effective care planning (see Appendix C in the original guideline document)
- Skin assessment
- Categorization/Grading of pressure ulcers
- Selection and/or use of pressure management devices
- Development and implementation of an individualized skin care program
- Demonstration of positioning/transferring techniques to decrease risk of tissue breakdown
- Instruction on accurate documentation of pertinent data
- Roles and responsibilities of team members in relation to pressure ulcer risk assessment and prevention
- Client/family education and/or client/ family involvement in the plan of care
- Ongoing evaluation of the education and program goals
- Evaluation results are to be integrated into the program on a continuous basis (i.e., yearly)

*(Level of Evidence = IIb)*

Organization and Policy Recommendations

Recommendation 6.1

Organizations require a policy to provide and request advance notice when transferring or admitting clients at risk of pressure ulcers between practice settings when special equipment (e.g., surfaces) is needed.

*(Level of Evidence = IV)*

Recommendation 6.2

Guidelines are more likely to be effective if they take into account local circumstances and are disseminated by ongoing educational and training programs.

*(Level of Evidence = III)*

Recommendation 6.3

Best practice guidelines can be successfully implemented only when there are adequate planning, resources, organizational and administrative supports, as well as appropriate facilitation. Organizations are recommended to develop a plan for implementation that includes:

- An assessment of organizational readiness and barriers to implementation

- Involvement of all members (whether in a direct or indirect supportive function) who will contribute to the implementation process
- Dedication of a qualified individual to provide the support needed for the education and implementation process
- Ongoing opportunities for discussion and education to reinforce the importance of best practices
- Opportunities for reflection on personal and organizational experience in implementing guidelines

In this regard, a panel of nurses, researchers, and administrators developed the RNAO *Toolkit: Implementation of Clinical Practice Guidelines* (2002) based on available evidence, theoretical perspectives and consensus. The *Toolkit* is recommended for guiding the implementation of the RNAO guideline *Risk Assessment and Prevention of Pressure Ulcers (2005)*.

*(Level of Evidence = IIb)*

Recommendation 6.4

Organizations need to ensure that financial and human resources are available to clients and staff. These resources include, but are not limited to, appropriate moisturizers, skin barriers, access to equipment (therapeutic surfaces), relevant consultants and interprofessional wound care team (e.g., OT, PT, enterostomal therapist [ET]; wound, ostomy and continence nurses; dietician; physicians; nurse practitioners; chiropodist; wound specialists; etc.) as well as time and support for front line nursing staff.

*(Level of Evidence = IIa)*

Recommendation 6.5

Interventions and outcomes should be monitored and documented using prevalence and incidence studies, surveys and focused audits.

*(Level of Evidence = III)*

Recommendations 6.6

Create and support the development of skin and wound care champions to assist with local implementation of pressure ulcer prevention programs specific to the client population.

*(Level of Evidence = III)*

Recommendation 6.7

Embed annual prevalence of pressure ulcer studies into assessment of risk/quality and professional practice.

*(Level of Evidence = III)*

Recommendation 6.8

Prevalence studies funded by the setting should be conducted annually for quality monitoring, client safety and program improvement. Funding should be provided to involve point of care staff in data collection and analysis. All participants of this process need to participate in a rigorous standardized education program prior to conducting the study.

*(Level of Evidence = III)*

Definitions:

Level of Evidence

Ia Evidence obtained from meta-analysis or systematic review of randomized controlled trials

Ib Evidence obtained from at least one randomized controlled trial

IIa Evidence obtained from at least one well-designed controlled study without randomization

IIb Evidence obtained from at least one other type of well-designed quasi-experimental study without randomization

III Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies, and case studies

IV Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities

## Clinical Algorithm(s)

None provided

# Scope

## Disease/Condition(s)

Pressure ulcers, also known as pressure sores

## Guideline Category

Counseling

Evaluation

Management

Prevention

Risk Assessment

## Clinical Specialty

Critical Care

Dermatology

Family Practice

Geriatrics

Nursing

Preventive Medicine

Surgery

## Intended Users

Advanced Practice Nurses

Nurses

## Guideline Objective(s)

- To update the March 2005 Nursing Best Practice Guidelines for the Risk Assessment & Prevention of Pressure Ulcers based on new evidence obtained since the originally published guidelines
- To assist in decision making for individualized client care as well as ensuring that appropriate structures and supports are in place to provide the best possible care

## Target Population

Adults who are at risk of developing pressure ulcers

## Interventions and Practices Considered

Evaluation/Risk Assessment

1. Skin assessment with particular attention to bony prominences and skin adjacent to external devices
2. Assessment of a client's risk for the development of pressure ulcers using a structured tool (e.g., Braden Scale for Predicting Pressure Sore Risk)
3. Identification and staging of all pressure ulcers using standardized system and language (e.g., the National Pressure Ulcer Advisory Panel [NPUAP] criteria)
4. Assessment and documentation of skin changes, particularly among vulnerable populations, such as palliative patients, neonates, and spinal cord injured patients

Prevention/Management

1. Individualized plan of care
2. Use of a pressure management surface, such as a foam pressure redistribution mattress
3. Use of a re-positioning schedule and proper use of transferring and turning techniques
4. Off-loading patient's heels
5. Monitoring and managing pain level
6. Avoiding massage over bony prominences and reddened areas
7. Intraoperative pressure management for surgical procedures over 90 minutes
8. Protecting skin from excessive moisture and promoting skin integrity
9. Assessing nutritional deficits and providing support as needed
10. Instituting a rehabilitation/restorative/activity program, as appropriate
11. Discharging/transferring of care assistance
12. Educational programs for prevention of pressure ulcers
13. Annual assessment of prevalence and incidence of pressure ulcers (e.g., studies, surveys, focused audits)

## Major Outcomes Considered

- Changes of the skin
- Risks of injury
- Lower mobility, resulting in decreased independence in activities of daily living, increased institutional care after discharge, and death
- Prevalence and incidence rates of pressure ulcers

# Methodology

## Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

## Description of Methods Used to Collect/Select the Evidence

March 2005 Guideline

A database search for existing literature related to pressure ulcer prevention was conducted by a university health sciences library. An initial search of the Medline, EMBASE, and CINAHL databases for guidelines and studies published from 2001 to 2004 was conducted in August 2004. The search was structured to answer the following questions:

1. What are the risk factors/contributing factors or predictors for the development of pressure ulcers in the adult population?

2. What is the evidence for pressure ulcer prevention?
3. What interventions do nurses need to initiate to prevent pressure ulcers?
4. How effective are the following in the prevention of pressure ulcer:
    - Assessment of risk factors
    - Pressure relief
    - Pressure reduction
5. What education do nurses need around strategies for the prevention of pressure ulcers?
6. What support does the organization need to provide to ensure nurses have the knowledge and skills for pressure ulcer prevention?
7. What supports are needed for successful implementation of a pressure ulcer prevention program?

One individual searched an established list of Web sites for content related to the topic area in July 2004. This list of sites, reviewed and updated in May 2004, was compiled based on existing knowledge of evidence-based practice web sites, known guideline developers, and recommendations from the literature. Presence or absence of guidelines was noted for each site searched as well as date searched. The Web sites at times did not house a guideline but directed to another Web site or source for guideline retrieval. Guidelines were either downloaded if full versions were available or were ordered by phone/email.

A Web site search for existing practice guidelines on pressure ulcer risk assessment and prevention was conducted via the search engine "Google", using key search terms. One individual conducted this search, noting the results of the search, the Web sites reviewed, date, and a summary of the results. The search results were further reviewed by a second individual who identified guidelines and literature not previously retrieved.

Additionally, panel members were asked to review personal archives to identify guidelines not previously found through the above search strategy. Results of this strategy revealed no additional clinical practice guidelines.

The search strategy described above resulted in the retrieval of 1,818 abstracts on the topic of pressure ulcers. These abstracts were then screened by a Research Assistant in order to identify duplications and assess for inclusion/exclusion criteria. A total of 106 abstracts were identified for article retrieval and quality appraisal. The quality appraisal was conducted by a Masters prepared nurse with expertise in critical appraisal. The tool used to conduct this work was one developed by the Effective Public Health Practice Project (EPHPP) for appraising quantitative studies.

In addition, three recently published clinical practice guidelines were identified for review and critical appraisal by the panel, using the *Appraisal of Guidelines for Research and Evaluation* (AGREE Collaboration, 2001) instrument.

2011 Supplement

One individual searched an established list of websites for guidelines and other relevant documents. The list was compiled based on existing knowledge of evidence-based practice websites and recommendations from the literature.

Members of the panel critically appraised ten international guidelines, published since 2004, using the "Appraisal of Guidelines for Research and Evaluation II" instrument (AGREE Next Steps Consortium, 2009). From this review, two guidelines were identified to inform the review process.

Concurrent with the review of existing guidelines, a search for recent literature relevant to the scope of the guideline was conducted with guidance from the Team Leader. A search of electronic databases, CINAHL, Medline, EMBASE, Web of Science and the Cochrane library, was conducted by a health sciences librarian. A research assistant (Master's prepared nurse) completed the inclusion/exclusion review, quality appraisal and data extraction of the retrieved articles, and prepared a summary of the literature findings. The comprehensive data tables and references were provided to all panel members.

A summary of the evidence review process is provided in the Review Process Flow Chart in the original guideline supplement document.

## Number of Source Documents

March 2005 Guideline

Not stated

2011 Supplement

Two guidelines and 107 studies were included and retrieved for review.

## Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

## Rating Scheme for the Strength of the Evidence

Level of Evidence

Ia Evidence obtained from meta-analysis or systematic review of randomized controlled trials

Ib Evidence obtained from at least one randomized controlled trial

IIa Evidence obtained from at least one well-designed controlled study without randomization

IIb Evidence obtained from at least one other type of well-designed quasi-experimental study without randomization

III Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies, and case studies

IV Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities

## Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

## Description of the Methods Used to Analyze the Evidence

Not stated

## Methods Used to Formulate the Recommendations

Expert Consensus

## Description of Methods Used to Formulate the Recommendations

March 2005 Guideline

In September of 2004, a panel of nurses with expertise in pressure ulcer prevention from a range of practice settings (including institutional, community, and academic sectors) was convened by the RNAO. This group was invited to participate as a review panel to revise the guideline that was originally published in January 2002. The panel was comprised of members of the original panel, as well as other recommended specialists, including representation from the pilot implementation site. The panel members were given the mandate to review the guideline, focusing on the currency of the recommendations and evidence, keeping to the original scope of the document. Through a process of consensus, recommendations for revision to the guideline were identified.

2011 Supplement

The Registered Nurses' Association of Ontario (RNAO) has made a commitment to ensure that this practice guideline is based on the best available evidence. In order to meet this commitment, a monitoring and revision process has been established for each guideline every three to five years.

An interprofessional panel comprised of members from the original development panel as well as other recommended individuals with particular expertise in this practice area (including nurses, an occupational therapist, a physiotherapist and a dietitian) were assembled for this review. A structured evidence review based on the scope of the original guideline and supported by seven clinical questions was conducted to capture the relevant literature and guidelines published since the original publication. Seven research questions were established to guide the literature review (see the original guideline document for details).

Initial findings regarding the impact of the current evidence on the original recommendations were summarized and circulated to the review panel. Additional hand searches of the literature were conducted to supplement the results of the literature review as directed by the review panel. In addition, the review panel members were given a mandate to review the original guideline in light of the new evidence, specifically to ensure the validity, appropriateness and safety of the guideline recommendations as published in 2005.

### Rating Scheme for the Strength of the Recommendations

Not applicable

### Cost Analysis

The guideline developers reviewed published cost analyses.

### Method of Guideline Validation

Not stated

### Description of Method of Guideline Validation

Not applicable

## Evidence Supporting the Recommendations

### Type of Evidence Supporting the Recommendations

The type of evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

## Benefits/Harms of Implementing the Guideline Recommendations

### Potential Benefits

- Appropriate assessment and prevention of pressure ulcers
- Early identification of persons at risk for pressure ulcer development and prompt interventions remain key to pressure ulcer prevention.

### Potential Harms

- Allergies and adverse reactions to wound care products
- When choosing a therapeutic support surface, special attention needs to be given to the issue of entrapment. Between 1980 and 2008, 54 per cent of the 67 life-threatening entrapments reported to Health Canada led to death. The risk of entrapment may be increased when using a therapeutic support surface as it may not have exactly the same dimensions as the original mattress.
- Techniques such as offloading patient's heels with an intravenous solution bag, or having patients sit on a donut device to off load the ischial tuberosities can potentially increase pressure of the surrounding skin and cause ischemia resulting in further breakdown of the vulnerable area.

## Contraindications

## Contraindications

- Several articles reviewed suggested massage to be contraindicated in the presence of acute inflammation, as this indicates the possibility of damaged blood vessels or fragile skin.
- A clinician must be aware of a patient's renal status prior to the recommendation of enhanced protein, fluid, vitamins and minerals as there are precautions and contraindications to supplementation in a case of renal insufficiency as well as in other co-morbidities.

# Qualifying Statements

## Qualifying Statements

- This nursing best practice guideline is a comprehensive document providing resources necessary for the support of evidence-based nursing practice. The document needs to be reviewed and applied based on the specific needs of the organization or practice setting/environment, as well as the needs and wishes of the client. Guidelines should not be applied in a "cookbook" fashion but used as a tool to assist in decision making for individualized client care, as well as ensuring that appropriate structures and supports are in place to provide the best possible care.
- Nurses, other healthcare professionals and administrators who are leading and facilitating practice changes will find this document valuable for the development of policies, procedures, protocols, educational programs, assessment and documentation tools. It is recommended that the nursing best practice guidelines be used as a resource tool. It is not necessary, nor practical that every nurse have a copy of the entire guideline. Nurses providing direct client care will benefit from reviewing the recommendations, the evidence in support of the recommendations and the process that was used to develop the guidelines. However, it is highly recommended that practice settings/environments adapt these guidelines in formats that would be user-friendly for daily use. This guideline has some suggested formats for such local adaptation and tailoring.
- These best practice guidelines are related only to nursing practice and not intended to take into account fiscal efficiencies. These guidelines are not binding for nurses, and their use should be flexible to accommodate client/family wishes and local circumstances. They neither constitute a liability nor discharge from liability. While every effort has been made to ensure the accuracy of the contents at the time of publication, neither the authors nor Registered Nurses' Association of Ontario (RNAO) give any guarantee as to the accuracy of the information contained in them, nor accept any liability, with respect to loss, damage, injury or expense arising from any such errors or omissions in the contents of this work. Any reference throughout the document to specific pharmaceutical products as examples does not imply endorsement of any of these products.
- Similar to the original guideline publication, this document needs to be reviewed and applied, based on the specific needs of the organization or practice setting/environment, as well as the needs and wishes of the client. This supplement should be used in conjunction with the guideline as a tool to assist in decision making for individualized client care as well as ensuring that appropriate structures and supports are in place to provide the best possible care.

# Implementation of the Guideline

## Description of Implementation Strategy

Best practice guidelines can only be successfully implemented if there are adequate planning, resources, organizational and administrative support, as well as appropriate facilitation. The Registered Nurses' Association of Ontario (RNAO), through a panel of nurses, researchers, and administrators, has developed a *Toolkit: Implementation of Clinical Practice Guidelines* based on available evidence, theoretical perspectives, and consensus. The Toolkit is recommended for guiding the implementation of any clinical practice guideline in a healthcare organization.

The Toolkit provides step-by-step directions to individuals and groups involved in planning, coordinating, and facilitating guideline implementation. Specifically, the Toolkit addresses the following key steps:

1. Identifying a well-developed, evidence-based clinical practice guideline
2. Identification, assessment, and engagement of stakeholders
3. Assessment of environmental readiness for guideline implementation
4. Identifying and planning evidence-based implementation strategies

5. Planning and implementing an evaluation
6. Identifying and securing required resources for implementation and evaluation

Implementing practice guidelines that result in successful practice changes and positive clinical impact is a complex undertaking. The Toolkit is one key resource for managing this process.

Evaluation and Monitoring

Organizations implementing the recommendations in this nursing best practice guideline are advised to consider how the implementation and its impact will be monitored and evaluated. A table in the original guideline document, based on the framework outlined in the RNAO Toolkit: Implementation of Clinical Practice Guidelines, illustrates some suggested indicators for monitoring and evaluation.

Implementation Strategies

The Registered Nurses' Association of Ontario and the guideline revision panel have compiled a list of implementation strategies to assist health care organizations or health care disciplines who are interested in implementing this guideline. A summary of these strategies follows:

- Have at least one dedicated person such as an advanced practice nurse or a clinical resource nurse who will provide support, clinical expertise and leadership. The individual should also have good interpersonal, facilitation and project management skills.
- Conduct an organizational needs assessment related to prevention of pressure ulcers to identify current knowledge base and further educational requirements.
- Initial needs assessment may include an analysis approach, survey and questionnaire, group format approaches (e.g., focus groups), and critical incidents.
- Establish a steering committee comprised of key stakeholders and interdisciplinary members committed to lead the change initiative. Identify short term and long term goals. Keep a work plan to track activities, responsibilities and timelines.
- Create a vision to help direct the change effort and develop strategies for achieving and sustaining the vision.
- Program design should include:
    - Target population
    - Goals and objectives
    - Outcome measures
    - Required resources (human resources, facilities, equipment)
    - Evaluation activities
- Design educational sessions and ongoing support for implementation. The education sessions may consist of presentations, facilitator's guide, handouts, and case studies. Binders, posters and pocket cards may be used as ongoing reminders of the training. Plan education sessions that are interactive, include problem solving, address issues of immediate concern and offer opportunities to practice new skills.
- Provide organizational support such as having the structures in place to facilitate the implementation. For example, hiring replacement staff so participants will not be distracted by concerns about work and having an organizational philosophy that reflects the value of best practices through policies and procedures. Develop new assessment and documentation tools.
- Identify and support designated best practice champions on each unit to promote and support implementation. Celebrate milestones and achievements, acknowledging work well done.
- Organizations implementing this guideline should adopt a range of self-learning, group learning, mentorship and reinforcement strategies that will over time, build the knowledge and confidence of nurses in implementing this guideline.
- Beyond skilled nurses, the infrastructure required to implement this guideline includes access to specialized equipment and treatment materials. Orientation of the staff to the use of specific products and technologies must be provided and regular refresher training planned.
- Teamwork, collaborative assessment and treatment planning with the client and family and interdisciplinary team are beneficial in implementing guidelines successfully. Referral should be made as necessary to services or resources in the community or within the organization.

In addition to the strategies mentioned above, the RNAO has developed resources that are available on the website. A Toolkit for implementing guidelines can be helpful if used appropriately. A brief description about this Toolkit can be found in Appendix H of the original guideline. A full version of the document in pdf format is also available at the RNAO website, www.rnao.org/bestpractices .

## Implementation Tools

Audit Criteria/Indicators

Chart Documentation/Checklists/Forms

Foreign Language Translations

Mobile Device Resources

Patient Resources

Quick Reference Guides/Physician Guides

Resources

Slide Presentation

Tool Kits

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

# Institute of Medicine (IOM) National Healthcare Quality Report Categories

## IOM Care Need

Staying Healthy

## IOM Domain

Effectiveness

Patient-centeredness

# Identifying Information and Availability

## Bibliographic Source(s)

Registered Nurses' Association of Ontario (RNAO). Risk assessment & prevention of pressure ulcers 2011 supplement. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2011 Sep. 48 p. [130 references]

Registered Nurses' Association of Ontario (RNAO). Risk assessment & prevention of pressure ulcers. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2005 Mar. 80 p. [70 references]

## Adaptation

The Registered Nurses Association of Ontario (RNAO) panel selected the following guidelines to adapt and modify for the current guideline:

March 2005 Guideline

- Folkedahl, B.A., Frantz, R.A. & Goode, C. (2002). Prevention of pressure ulcers evidence-based protocol. In M.G. Titler (Series Ed.), Series on Evidence-Based Practice for Older Adults, Iowa City, IA: The University of Iowa College of Nursing Gerontological Nursing Interventions Research Center, Research Translation and Dissemination Core.
- National Institute for Clinical Excellence (2001). Pressure ulcer risk assessment and prevention. [Online].

- Wound Ostomy and Continence Nurses Society (2003). Guideline for the prevention and management of pressure ulcers. Glenview, IL: Wound, Ostomy, and Continence Nurses Society.

## Date Released

2002 Jan (revised 2005; addendum released 2011)

## Guideline Developer(s)

Registered Nurses' Association of Ontario - Professional Association

## Source(s) of Funding

Funding was provided by the Ontario Ministry of Health and Long Term Care.

## Guideline Committee

Guideline Development Panel

## Composition of Group That Authored the Guideline

*Revision Panel Members*

Nancy Parslow RN, CETN(C), MClSc Wound Healing
Team Leader
Advanced Practice Nurse Skin and Wound Care
Toronto Health Economics and Technology Assessment
Collaborative (Theta)
University of Toronto, Toronto, Ontario

Karen Campbell RN, MScN, PhD
Field Leader- MClSc Wound Healing
University of Western Ontario
Wound Care Program Manager, ARGC, Parkwood Hospital
St. Joseph's Health Care London, London, Ontario

Chris Fraser HBSc, RD
Registered Dietitian
Rehabilitation Program
Parkwood Hospital, London, Ontario

Connie Harris RN, ET, IIWCC, MSc
Senior Clinical Specialist Wound and Ostomy
Care Partners/ ET NOW
Kitchener, Ontario
South West Regional Wound Care Framework Initiative-
Project Lead
South West Local Health Integration Network

Kathryn Kozell RN, BA, MScN, APN, CETN(C)
Clinical Nurse Specialist/Manager
Rachel M. Flood Education Program in Ostomy and Wound Care
Mount Sinai Hospital, Toronto, Ontario

Janet Kuhnke RN, BA, BScN, MS, ET, PhD(c)
Instructor, School of Nursing
Queen's University, Kingston, Ontario
Instructor, Faculty of Nursing
St. Lawrence College, Cornwall, Ontario

Kimberly LeBlanc RN, BScN, MN, CETN(C)
Clinical Nurse Specialist/Nurse Educator/Enterostomal Therapist
KDS Professional Consulting, Ottawa, Ontario

Susan Mills Zorzes RN, BScN, MDE, CWOCN, CETN(C)
Enterostomal Therapy Nurse
Wound, Ostomy and Continence Service
St. Joseph's Care Group, Thunder Bay, Ontario

Linda Norton OTReg.(ONT), MScCH
National Education Coordinator
Shoppers Home Health Care
Toronto, Ontario
Director, Interprofessional Team
Canadian Association of Wound Care, Toronto, Ontario

Lyndsay Orr PT, MCLSc Wound Healing
Wound Care Resource, Physiotherapist
Cambridge Memorial Hospital, Cambridge, Ontario

Fruan Tabamo RN, BPh, BTh, MCLSc
Wound Care Coordinator
Donald Berman Maimonides Geriatric Centre
Montreal, Quebec

Laura Teague RN(EC), MN, NP-Adult
Wound Care Team
St. Michael's Hospital
Toronto, Ontario
Adjunct Faculty – MCLSc
University of Western Ontario, London, Ontario
Lecturer – Faculty of Nursing
University of Toronto, Toronto, Ontario

Kevin Woo RN, PhD, GNC(C), FAPWCA
Assistant Professor
School of Nursing
Queen's University, Kingston, Ontario
Wound Care Consultant
West Park Health Centre, Toronto, Ontario
Co-Director – International Interprofessional Wound Care
Course (IIWCC) and Masters of Science Community Health
(Prevention and Wound Care)
Dalla Lana School of Public Health
University of Toronto, Toronto, Ontario

Frederick Go RN, MN
Program Manager
International Affairs and Best Practice Guideline Program
Registered Nurses' Association of Ontario
Toronto, Ontario

Eliisa Fok BSc
Program Assistant
International Affairs and Best Practice Guidelines Program
Registered Nurses' Association of Ontario
Toronto, Ontario

## Financial Disclosures/Conflicts of Interest

Not stated

## Guideline Status

This is the current release of the guideline.

## Guideline Availability

Electronic copies: Available in English, French, Italian, and Spanish in Portable Document Format (PDF) from the Registered Nurses' Association of Ontario (RNAO) Web site.

Print copies: Available from the Registered Nurses' Association of Ontario (RNAO), Nursing Best Practice Guidelines Project, 158 Pearl Street, Toronto, Ontario M5H 1L3.

## Availability of Companion Documents

The following are available:

- Summary of recommendations. Risk assessment & prevention of pressure ulcers. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2011. 6 p. Electronic copies: Available in Portable Document Format (PDF) from the Registered Nurses' Association of Ontario (RNAO) Web site.
- Toolkit: implementation of clinical practice guidelines. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2002 Mar. 88 p. Electronic copies: Available in PDF from the RNAO Web site. See the related QualityTool summary on the Health Care Innovations Exchange Web site.
- Sustainability of best practice guideline implementation. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2006. 24 p. Electronic copies: Available in PDF and as a Power Point presentation from the RNAO Web site.
- Educator's resource: integration of best practice guidelines. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2005 Jun. 123 p. Electronic copies: Available in PDF from the RNAO Web site.
- Assessment and management of presure ulcers – education program. Electronic copies: Available from the RNAO Web site
- Positioning techniques in long-term care: self-directed learning package for health care providers. Electronic copies: Available from the RNAO Web site

Various resources, including tools to assess pressure ulcer risk, the Individual Braden Subscale Intervention Checklist, the InterRAI Pressure Ulcer Risk Scale, and a support surface selection tool, are available in the appendices to the supplement. A table in the original guideline document, based on the framework outlined in the RNAO Toolkit: Implementation of Clinical Practice Guidelines, illustrates some suggested indicators for monitoring and evaluation.

Print copies: Available from the Registered Nurses' Association of Ontario (RNAO), Nursing Best Practice Guidelines Project, 158 Pearl Street, Toronto, Ontario M5H 1L3.

Mobile versions of RNAO guidelines are available from the RNAO Web site. A French version of this mobile guideline is also available.

## Patient Resources

The following is available:

- Health education fact sheet. Taking the pressure off: preventing pressure ulcers. Toronto (ON): Registered Nurses' Association of Ontario (RNAO); 2003 Nov. 2 p. Electronic copies: Available in Portable Document Format (PDF) from the RNAO Web site .

Print copies: Available from the Registered Nurses' Association of Ontario (RNAO), Nursing Best Practice Guidelines Project, 158 Pearl Street, Toronto, Ontario M5H 1L3.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

## NGC Status

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